

Work Order ID 58252

May 3, 2010 8:18:58 AM



Page 1

Item ID: D2574

Accept



Setup Start



Revision ID:

Item Name: Saddle, Aft In 205

Stop



Start Date: 03/05/2010 Start Qty: 8.00



Cust Item ID:

Required Date: 10/05/2010 Req'd Qty: 8.00

Customer:

Reference:

Approvals:

Process Plan:

[Signature]

Date: 10-5-03

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D2574

Rev E

100

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS I

HAAS CNC vertical machine #1

Memo

0.00

Program Batch No. 58252 Double check by: *B.A.* ☐ 1-Machine Step No 1 per Folio FA051 and inspect per attached Dimension Sheets 2-Machine Step No 2 per Folio FA051 and inspect per attached Dimension Sheets ☐ 3-Machine Step No 3 per Folio FA051 and insp

10-5-12

8

[Signature]

110

0.00



CONVENTIONAL MILLING MACHINE

Mill Conv

Conventional Milling Machine

Memo

0.00

Machine keyway as per dwg D2573 & D2574

10-5-12

B.A 10/05/13

8

[Signature]

120

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Quality Control

Memo

0.00

10-5-12

B.A 10/05/13

8

[Signature]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2574 PAR #: _____ Fault Category: Unmachining NCR: Yes No DQA: _____ Date: 10/06/02
 Resolution: Scrap x2 Disposition: Scrap x2 QA: N/C Closed: _____ Date: 10/06/02

NCR: <u>58252</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>10.5.12</u>	<u>100</u>	<ul style="list-style-type: none"> ERROR IN TAKING ORIGIN PART CUT SHORT BY .259" OPERATOR ERROR. R.C. L.O.A.	<u>10.05.12</u> <u>Q51042</u>	<ul style="list-style-type: none"> SCRAP + REPLACE. RE-TAKE ORIGIN OFF BY .259" 	<u>10.5.11</u>	<u>S</u> <u>10/05/12</u>	<u>10.05.12</u> <u>Q51042</u>	<u>S</u> <u>10/05/12</u>
<u>10.5.12</u>	<u>100</u>	<ul style="list-style-type: none"> TOOL GEOMETRY ERROR. CHAMP. TOOL PLUNGE INTO WORKPIECE. T1 H71 WHERE T11 H71 SHOULD BE. R.C. Program/Colic. 	<u>10.05.12</u> <u>Q51042</u>	<ul style="list-style-type: none"> SCRAP + REPLACE CORRECT TOOL 11 H71 OFFSET GEOMETRY. 	<u>10.5.11</u>	<u>S</u> <u>10/05/12</u>	<u>10.05.12</u> <u>Q51042</u>	<u>S</u> <u>10/05/12</u>
<u>10.5.12</u>		<ul style="list-style-type: none"> OPERATOR ERROR DIMENSION <u>10</u> OUT TOLERANCE 						

NOTE: Date & initial all entries

Work Order ID 58252

May 3, 2010 8:18:58 AM



Page 2

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Start Date: 03/05/2010 Start Qty: 8.00



Cust Item ID:

Required Date: 10/05/2010 Req'd Qty: 8.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

cmh 10/05/18

8

Quality Control

140

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

HL 10/05/18

8

0

Hand Finishing

150

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

1114209 => HL 10/05/20

8

0

Powder Coating

START TIME: *1:30p* OVEN TEMPERATURE:
2:00p ~ FINISH TIME: *3:20p*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 58252

May 3, 2010 8:18:58 AM



Page 3

Item ID: D2574

Accept



Setup Start



Revision ID:

Item Name: Saddle, Aft In 205

Stop



Start Date: 03/05/2010 Start Qty: 8.00



Cust Item ID:

Required Date: 10/05/2010 Req'd Qty: 8.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160



QC3- Inspect Part Finish

0.00

QC

Memo

0.00

Quality Control

8

BR 10-5-20.

170



Identify as per dwg & Stock Location: 434

0.00

Packaging

Memo

0.00

Packaging

10-5-20 5/ (2)

180



QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

10/05/21 HJ

BR 10-5-21

FJ

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

May 3, 2010 8:19:03 AM

Page 1

Work Order ID: 58252



Parent Item: D2574



Parent Item Name: Saddle, Aft In 205


Start Date: 03/05/2010

Required Date: 10/05/2010

Comments: IPP Rev: I As Per RevE 06-01-27 JLM

Start Qty: 8.00

Required Qty: 8.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Qty Issued	Date Issued	Status
D6101-005  Saddle Billet		Manufactured	No			110	Each	70.0000	1			

Location

Loc Qty

Loc Code

MAT46

70

46411

70

x4

6.0 S.A 10/05/13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	58252
Description: Saddle, Aft Inboard		Part Number:	D2574
Inspection Dwg: D2574 Rev. E		Page 1 of 1	

Inspect dimensions highlighted on inspection sheet drawing D2574 Rev. E and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				1	2	3	4		
A	0.438	0.443		0.440	0.440	0.440	0.440		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.000	8.000	8.000	8.000		
F	0.490	0.510		0.500	0.500	0.500	0.500		
G	0.257	0.262		0.258	0.259	0.259	0.259		
H	0.375	0.380		0.375	0.377	0.377	0.377		
I	0.490	0.510		0.500	0.503	0.503	0.503		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		0.568	0.571	0.571	0.571		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.365	1.375		1.370	1.370	1.370	1.370		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	4.119	4.129		4.124	4.124	4.124	4.124		
P	0.115	0.135		0.121	0.125	0.125	0.125		
Q	0.115	0.135		0.129	0.135	0.135	0.135		
R	0.240	0.260		0.250	0.249	0.249	0.249		
S	0.115	0.135		0.135	0.122	0.123	0.122		
T	0.178	0.198		0.188	0.188	0.188	0.188		
U	3.210	3.250		3.233	3.233	3.233	3.233		
V	0.230	0.250		0.247	0.236	0.236	0.236		
W	0.115	0.135		0.130	0.131	0.131	0.131		
X	0.307	0.312		0.310	0.310	0.310	0.310		
Y	0.760	0.765		0.760	0.762	0.762	0.762		
Z	0.352	0.372		0.362	0.364	0.363	0.364		
AA	0.470	0.530		0.480	0.500	0.500	0.500		
AB	0.615	0.635		0.627	0.628	0.628	0.628		
AC	0.053	0.073		0.063	0.063	0.063	0.063		
AD	0.240	0.260		0.253	0.245	0.245	0.245		
AE	1.500	1.520		1.502	1.5128	1.5122	1.5122		
AF	0.115	0.135		0.135	0.135	0.135	0.135		
AG	0.240	0.280		0.260	0.280	0.280	0.280		
AH	0.240	0.260		0.256	0.248	0.248	0.248		
AI	2.000	2.020		2.000	2.004	2.003	2.003		
AJ	0.023	0.043		0.033	0.033	0.033	0.033		
Accept/Reject									

Measured by:	<i>[Signature]</i>
Date:	10.5.12

Audited by:	<i>[Signature]</i>
Date:	10/10/5/18

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.27	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	<i>[Signature]</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order: 58252
Description: Saddle, Aft Inboard	Part Number: D2574
Inspection Dwg: D2574 Rev. E	Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2574 Rev. E and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				15	16	17	18		
A	0.438	0.443		0.440	0.440	0.440	0.440		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.000	8.000	8.000	8.000		
F	0.490	0.510		0.500	0.500	0.500	0.500		
G	0.257	0.262		0.259	0.259	0.259	0.259		
H	0.375	0.380		0.375	0.375	0.375	0.375		
I	0.490	0.510		0.503	0.503	0.503	0.503		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		0.571	0.571	0.571	0.571		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.365	1.375		1.370	1.370	1.370	1.370		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	4.119	4.129		4.124	4.124	4.124	4.124		
P	0.115	0.135		0.124	0.124	0.124	0.124		
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R	0.240	0.260		0.249	0.249	0.249	0.249		
S	0.115	0.135		0.122	0.122	0.124	0.122		
T	0.178	0.198		0.188	0.188	0.188	0.188		
U	3.210	3.250		3.233	3.233	3.233	3.233		
V	0.230	0.250		0.236	0.236	0.236	0.236		
W	0.115	0.135		0.131	0.131	0.131	0.131		
X	0.307	0.312		0.310	0.310	0.310	0.310		
Y	0.760	0.765		0.762	0.762	0.762	0.762		
Z	0.352	0.372		0.364	0.364	0.363	0.364		
AA	0.470	0.530		0.500	0.500	0.500	0.500		
AB	0.615	0.635		0.628	0.628	0.628	0.628		
AC	0.053	0.073		0.063	0.063	0.063	0.063		
AD	0.240	0.260		0.245	0.245	0.245	0.245		
AE	1.500	1.520		1.513	1.513	1.513	1.514		
AF	0.115	0.135		0.135	0.135	0.135	0.135		
AG	0.240	0.280		0.280	0.280	0.280	0.280		
AH	0.240	0.260		0.248	0.248	0.248	0.248		
AI	2.000	2.020		2.001	2.002	2.004	2.003		
AJ	0.023	0.043		0.033	0.033	0.033	0.033		
Accept/Reject									

Measured by:	G. A
Date:	10/05/13

Audited by:	Am
Date:	10/05/18

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.27	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
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3200 3200 3200 3200

3200 3200 3200 3200
3200 3200 3200 3200
3200 3200 3200 3200
3200 3200 3200 3200

WITHOUT NOTICE
WORK ORDER
NO. 58252

05.12.06 #

MATERIAL: 7075-T7351 (QQ-A-250/12)
(REF DART SPEC. D6102-003)
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER
DART QSI 005 4.3
BREAK ALL SHARP EDGES 0.010 TO 0.020
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

- | | |
|---|--|
|  | ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO MAX DEPTH OF 0.010 |
|  | CHAMFER 0.063" x 45° AROUND THIS SURFACE (TYPICAL 2 PLACES) |
|  | CHAMFER 0.063 x 45° ALL AROUND |
|  | CHAMFER 0.033 x 45° (SEE DETAIL C) |
-

[illegible]

0.250

0.060



R0.025
(REF, TYP)

C
2:1

4
(TYP)

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PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE LTD.

DESIGN DS	DRAWN BY PH	 DART AEROSPACE LTD. MARKHAM, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. D2574	REV. E SHEET 1 OF 1
DATE 05.07.13		TITLE INNER AFT SADDLE	SCALE 2:3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries